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EAST GERMANY/SED Research projects

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The Hydrographic Service was conducting numerous research projects including one on a Seemagnetograph, a buoy containing various measuring instruments, a fix tide computer, Kreiselsextant, divers bell, astronomisches rechargeraet, anemometer with recorder, meters to record percentages of oxygen density, temperature, salinity of seawater, a device to measure current, a device to take sea water samples. An OWL (URU) class lightship design project was cancelled in 1953. Sparrow (SPARLING) class buoy tenders have been in use since 1954 and have proved seaworthy. Research is underway also on various meteorological devices.

# 1. "Seemagnetograph".

This device could not be described. STBG was supposed to design and build this device. An aluminum torpedo was put at their disposal for testing this device. The torpedo was to have its complete steering mechanism (depth and side rudders). From Dr. BRUNS of S.E.D., it was learned that one mmxx such torpedo of about 8-meter length was being kept at L.V.L. 12 at GOLDBAST. This torpedo was recovered in the Baltic. Whether the torpedo was to serve as a casing for "Seemagnetograph" while being tested or whether the latter was to become part of the torpedo and the entire torpedo was to be tested is not known. Research work on "Seemagnetograph" was begun in 1954 when 8,200 mmxx East DM were spent; in 1955,

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 another 49,300 East DM were spent; and for 1956 and 1957-work, 140,000 and 92,000 East DM respectively had been approved. The research project was among those ordered and paid for by ZENTRALAMT FUER FORSCHUNG & ENTWICKLUNG BEI DER STAATLICHEN PLANKOMMISSION (Hereafter referred to as ZENTRALAMT) on behalf of S.N.D. It is assumed that W.F.B.G. just wanted a straight-steering body for testing their "Seemagnetograph".

2. Measuring buoy ("Messboje").

Designing and developing this buoy was ordered by Dr. BRUNS of S.N.D. The buoy was to serve as a casing for instruments measuring magnetism, current, and other unknown items. It is not known when project was started. This research project was among those ordered and paid for by ZENTRALAMT on behalf of Dr. BRUNS of S.N.D. In 1954 and 1955, 26,300 and 237,700 East DM respectively were spent for the project; for 1956 and 1957 another 400,000 and 211,000 East DM respectively were approved.

3. Tide computer ("Geseitenrechenmaschine").

This machine had been built by an unidentified SOVZONE plant located near POTSDAM. The machine was finished during the summer of 1955. In late 1955 it was installed in ROSTOCK VP-SSE headquarters building and has since been in operation. No information regarding the use made of the machine is known. Several attempts were made to sell this device to other Redblock countries, but no orders have been received.

4. "Kreisel sextant".

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This device could not be described nor was its purpose known. It is assumed that designing and developing "Kreisel sextant" was done by VEB GERÄTE & BEGLERWERKE (formerly ASKEAL Works) at TALTOW. It is certain that RPT FUEKWERK KOPPENICK did not do it. For 1954 and 1955-work on the project, 39,300 and 80,000 East DM respectively were spent. Another 80,000 East DM were approved for 1956-work on the project. This research project was among those ordered and paid for by ZENTRALAMT on behalf of S.N.D.

5. Diver Bell ("Taucherdruckkammer").

Designing and developing a dm diver bell was one of Herr BITTNER's favorite projects at I.S.V. ABTEILUNG DRESDEN. Work is still unfinished. The bell was to be suitable for 200-meter waterdepth. It was to be equipped with magnets in order to have it firmly attached to a sunken ship's hull. The bell was also planned to be capable of horizontal movements along the bottom of the sea. Divers in inside the bell were to be capable of performing work outside the bell proper. The bell was for the new diver craft of type TAUCHER or TAUCHER-40 presently being developed.

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6. "Astromonisches Rechengeraet".

Though originally ordered by RFT FUER TECHNİK on behalf of S.M.D., research order for this device had been definitely cancelled in 1955 after 14,200 East DM had been spent for 1954-work on the project. However, this research project appeared on the 1956 research project list of RFT FUER TECHNİK.

7. Anemometer with recorder ("Windpfeil mit Anzeige").

This was to be used aboard ship: it was to indicate and record true wind direction. The firm had showed it's willingness to take over the designing and developing. Finally, RFT FUER TECHNİK KOPPENICK was induced into having some of their engineers work on the project on the basis of a so-called "Studienentwurf", see para 5 of ref. (a). The latter was to be finished by the end of 1956. Then, RFT FUER TECHNİK KOPPENICK will decide whether or not they can and will build it. This research project was among those ordered and paid for by ZENTRALANT on behalf of S.M.D. 20,000 East DM had been approved for 1956-work on the project.

8. Oxygen meter ("Sauerstoffgauge O2").

Purpose of this gauge was to measure the percentage of oxygen and the density (Dichte) of seawater at certain depths. The device was to be designed especially for deep-water operations. Designing and developing the device had begun at S.T.B.G. in BERLIN in 1955. A prototype device was scheduled to be ready for testing in 1956. In 1957, several such devices were scheduled to be ready for installation in 3 S.M.D. craft expected to participate in the Russian expedition into "northern" waters. This research project was among those ordered and paid for by ZENTRALANT on behalf of Dr. BRUNS of S.M.D. 50,000 East DM had been approved for 1956-work on the project.

9. Temperature and salt meter ("Temperatur-+ Salzgehaltsfuehler").

Purpose of this combined gauge was to measure the temperature of and percentage of salt in seawater at certain depths. The device was to be designed especially for deep-water operations. Designing and developing the device had begun at S.T.B.G. in BERLIN in 1955. A prototype device was scheduled to be ready for testing in 1956. For 1957, several such devices were scheduled to be ready for installation in 3 S.M.D. craft expected to participate in the Russian expedition into "northern" waters. The research project was among those ordered and paid for by ZENTRALANT on behalf of Dr. BRUNS of S.M.D. 80,000 and 70,000 East DM respectively had been approved for 1956 and 1957-work on the project.

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10. Current meter ("In Dreibein uebereinander aufgehengte Stromungsmesser fuer Messungen dicht ueber dem Meeresboden").

As indicated by its German name, this device was to consist of 3 current meters mounted, one above the other, on a tripod. The meters were spaced 2 to 3 meters apart. The device was to be lowered from a ship down to the bottom of the sea. Designing and developing underway at ZAG in BERLIN was to be completed and a prototype device ready for testing in 1956. This research project was among those ordered and paid for by ZENTHALANT on behalf of S.H.D. 65,000 East DM had been approved for 1956-work on the project.

11. Remote-recording current meter and series current meter ("Fernregistrierender Stromungsmesser & Serienstromungsmesser")

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These are 2 different devices very similar to ~~XXXXXX~~ aforementioned tripod-mounted combined current meters. They were to be lowered from a ship and laid out on the seabottom or kept afloat at certain depths. They were to be connected to shore stations by cable for continuous recording ashore of measurements. ~~XXXXXX~~ designing and developing the devices was taking place and where they were planned to be built. The 2 research projects were among those ordered and paid of by ZENTHALANT on behalf of S.H.D. In 1954, 16,700 East DM had been spent for each project; in 1955, 64,800 and 45,200 East DM respectively; for 1956-work on the projects, 105,000 and 80,000 East DM respectively had been approved.

12. Electrically-operated bucket-chain for taking seawater samples.

("Elektrische Serienmaschine zum Herunterlassen einer Serie von Wasserschöpfern & Kippthermometern auf grossere Tiefen").

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~~XXXXXX~~ any individual bucket could be opened and closed for taking and safekeeping seawater samples at any wanted depth. Maximum depth of the chain was unknown. Designing and developing the device has been completed at an unknown installation. One prototype device is being built at VEB KONSTRUKTION & ENTWICKLUNGSBUREAU ROSTOCK. This research project was among those ordered and paid for by VP-SEA directly. 165,000 East DM has been approved for 1956-work on the project.

13. Buckets for taking seawater samples ("Wasserschöpfer 3,5 liter & WOHLENBERG Wasserschöpfer zur Entnahme von Wasserproben mit Schwebstoff in engbegrenzten horizontalen Schichten").

These were 2 different devices both of them similar to the above except for the chain-mechanism. Although a total of 20,000 East DM had originally been approved for 1956-research-work on the 2 devices. Research will not be carried out. They will be bought from an unidentified ~~XXXXXX~~ firm, following conventional designs. It is rumored that attempts will be made to buy them in West-Germany where WOHLENBERG, the original designer, is said to live. These 2 research projects had been put on 1956 VP-SEA research list however.

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14. Clockwork-type releaser ("Uhrwerkkauslöseverrichtung").

This was to become a sub-unit for one of the aforementioned meters and gauges. The release mechanism was to be operated by a battery having an operational endurance of either 20, 30, or 60 days. RPT FURKARD KOEPECK, had been approached to take over the research work, but refused to do so. It will probably be done by STBG at BHALIN. This research project was among those ordered and paid for by ZENTRALAMT on behalf of S.M.D. 22,100 East DM had been spent for 1955-work on the project and another 10,000 East DM had been approved for 1956-work.

15. Lightship type UHU.

Designing and developing UHU-type lightship was a 1953 research project. It was cancelled in 1953 for lack of funds. The project has not been discussed again since then.

16. SPERLING-class craft.

These were "Seezeichenkontroll & Bereisungsboote" (buoy, beacon, and lighthouse inspection and maintenance tenders) especially designed for their duties by former S.M.B. at FOLGAST. Three craft of the class had been built by VOLKSWERFT STRALSUND in 1954 and have been in commission since then. They were between 16 and 18 meters long, very seaworthy, and equipped with "propane"-gas containers for replenishing gas containers of buoys and beacons.

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17. Further S.M.D. research projects underway and/or planned.

A number of S.M.D. research projects underway and/or planned about [ ] had no information other than the money already spent or approved for them and all of which were paid for and ordered by ZENTRALAMT on behalf of S.M.D. are as follows:

- a. Truck-mounted and electrically-operated high-wind meter ("Elektrisches mittels Kraftfahrzeug transportables Höhenwindmessgerät").

In 1955 110,900 East DM had been spent for research work on this project for 1956, another 535,000 East DM were approved; most of the latter will be paid by KVP who were highly interested.

- b. Clouds-altitude meter ("Wolkenhöhenmesser").

Besides altitude, the device was also to measure direction and thickness of clouds. In 1954 and 1955, 39,000 and 179,800 East DM respectively had been spent; for 1956, another 15,000 East DM were approved for research work on this project.

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c. xx Underwater photometer ("Unterwasserphotometer").

In 1954 and 1955, 7,600 and 53,600 East DM respectively had been spent for research work on this project; for 1956 another 90,000 East DM were approved.

d. xx Wave recorder ("Meereswellenschreiber").

In 1954 and 1955, 8,700 and 32,100 East DM respectively had been spent for research work on the project; for xx 1956 and 1957, another 75,000 and 21,000 East DM respectively were approved.

e. xx Remote-recording sea-water gauge ("Fernregistrierender Seepegel").

The gauge was to be cable-connected to the shore for continuous recording ashore of measurements. In 1954 and 1955, 15,500 and 64,300 East DM respectively had been spent for research work on the project; for 1956 and 1957, another 95,000 and 15,000 East DM respectively were approved.

f. xx Remote-recording fathometer ("Fernregistrierender Tiefensensor").

  this was to become a component part of another device possible the above sea-water gauge. In 1955, 23,900 East DM had been spent for research work on the project; for 1956, another 10,000 East DM were approved.

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g. xx Recording buoy ("Registrierboje").

This was to become a buoy-type recording sea-water gauge with no connection to shore. Otherwise, it very closely resembled the remote-recording sea-water gauge. For 1956 research work on this project, 10,000 East DM has been approved.

18. Further research projects. S.H.D. was interested in.

Although not ordered by SHD interest was shown in the following projects: shallow-water echo-sounding gear ("Echoflachot"), direction finder with visual presentation ("Sichtfunkpeiler"), Geiger-counter for sea-bottom research (fischungsz ("Geigersachler fuer den Nachweis der Verfrachtung strahlender Keerner - radioaktiviert - am Meeresboden"), and a sinkable buoy ("Versenk-bare Boje").

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